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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/726,363	12/02/2003	Brian A. Leite	42P11441D	7144

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EXAMINER

LEE, CHUN KUAN

ART UNIT	PAPER NUMBER
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2182

DATE MAILED: 09/07/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/726,363	<b>Applicant(s)</b> LEETE ET AL.	
	<b>Examiner</b> Chun-Kuan (Mike) Lee	<b>Art Unit</b> 2182	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 12/02/2003.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☒ Claim(s) 5 and 12 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 02 December 2003 is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some    \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>10/15/2004</u> | 6) <input type="checkbox"/> Other: _____  |

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## **DETAILED ACTION**

### ***Specification***

1. The attempt to incorporate subject matter into this application by reference to "Enhance Host Controller Interface (EHCI) specification for a Universal Serial Bus (USB), revision 0.95, November 10, 2000" is ineffective because the EHCI specification was not disclosed in the 1449 form.

### ***Claim Objections***

2. Claims 5 and 12 are objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. Because it appears claims 5 and 12 are repetition of what was stated in the independent claim 1 and 8 respectively.

### ***Claim Rejections - 35 USC § 103***

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

3. Claims 1-2, 5-9 and 12-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wooten (US Patent 6,061,687).

4. As per claim 1, Wooten teaches a system method comprising of:

a host controller (reference number 130, Figure 1), capable of coupling a plurality of endpoint descriptors (queue heads) to a frame list (Figure 3; Figure 4A; column 6, lines 17-31, 48-67 and column 7, lines 1-49);

wherein the plurality of endpoint descriptors (queue heads) are coupled to the frame list before any transfer descriptor (Figure 3, 4A and 4B), wherein interrupt transfer descriptors are processed before synchronous transfer descriptors (Figure 3, 4A, and 4C; column 6, lines 17-31, 48-67 and column 7, lines 1-49);

further more, It would have been obvious to incorporate the processing of split-isochronous transaction descriptors after interrupt transfer descriptors. Considering that USB 2.0 is backward compatible, able to operate at either full or low speed, as shown by the endpoint descriptor's "S" field (column 7, lines 29-30).

5. As per claim 2, please see claim 1 in view of Wooten. Wooten further teaches said system method to include a host controller driver (reference number 200, Figure 2).

6. Claims 3-4 and 10-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wooten (US Patent 6,061,687) further in view of Howard et al. (US Patent 6,067,591).

7. As per claim 3, please see claim 1 in view of Wooten.

Wooten fails to specifically teach that the plurality of queue heads are coupled to the frame list before any transaction descriptors during initialization of the host

controller. Wherein said initialization consist of comparing the packet length and the period with a predetermined value. If the condition as stated is satisfied, the queue head is connected directly to the frame list, and if not the queue head is placed after the transfer descriptor.

Howard teaches a system method comprising of comparing the data frame with the remaining byte time (predetermined value), wherein said transaction is executed if the condition is satisfied (Figure 4 and column 2, lines 34-54). Wherein said determination is used in relation to USB devices (column 6, lines 23-32).

It would have been obvious to one of ordinary skill in this art, at the time of invention was made to implement the comparison of Howard's data frame into Wooten's system method, wherein said queue head is connected to the frame list during the comparison (initialization). This would have been obvious because not only are both inventions directly related to processing of data frames for USB devices, doing so will add and further expand Wooten's system method by ensuring the integrity of the data frame is maintained after completing a transaction (Howard, column 7, lines 63-67 and column 8, lines 1-7).

8. As per claim 4, please see claims 1 and 3 in view of Wooten and Howard. It would have been obvious that a plurality of queue heads are coupled to the frame list before any transaction descriptors after initialization of the host controller, because the result of the condition for comparison as stated earlier would have been satisfied.

9. As per claims 5-7, please see claim 1 in view of Wooten. Wooten further teaches said host controller is a USB host controller (Figure 2; column 1, lines 43-52) and

it would have been obvious for said host controller to be a USB 2.0 host controller, because it would have been obvious to incorporate any prior technical characteristics and designs into the newest version of USB, USB 2.0.

10. As per claim 8, please see claims 1 in view of Wooten. It would have been obvious for a system to comprise of a plurality of host controller.

11. As per claims 9 and 12-14, please see claims 1-2 and 5-8 in view of Wooten.

12. As per claims 10-11, please see claims 3-4 and 8 in view of Wooten and Howard.

**Conclusion**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chun-Kuan (Mike) Lee whose telephone number is (571) 272-0671 and email is chun-kuan.lee@uspto.gov. The examiner can normally be reached on 8AM to 5PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Popovici Dov can be reached on (571)272-4083. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300. Any inquiry of a general nature of relating to the status of this application should be directed to the Group receptionist whose telephone number is (571) 272-2100.

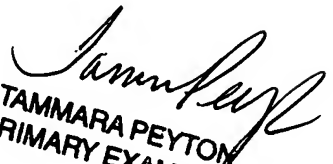
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Faxes for Official/formal (After Final) communications or for informal or draft communications (please label "PROPOSED" or "DRAFT") sent to:

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Hand-delivered responses should be brought to:  
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Alexandria, VA 22314

  
TAMMARA PEYTON  
PRIMARY EXAMINER